



UNITED STATES PATENT AND TRADEMARK OFFICE

A
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,581	09/05/2003	Richard Allen Brown	224162	7842
23460 7590 11/16/2007 LEYDIG VOIT & MAYER, LTD TWO PRUDENTIAL PLAZA, SUITE 4900 180 NORTH STETSON AVENUE CHICAGO, IL 60601-6731			EXAMINER CHANNAVAJJALA, LAKSHMI SARADA	
			ART UNIT 1615	PAPER NUMBER
			MAIL DATE 11/16/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/656,581

Applicant(s)

BROWN, RICHARD ALLEN

Examiner

Lakshmi S. Channavajjala

Art Unit

1615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt of response and amendment to the specification dated 8-24-07 is acknowledged.

Claims 1-49 are pending in the instant application.

Response to Arguments

Applicant's arguments filed 8-24-07 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-7, 9-11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,920,883 to Yamada et al (Yamada) in view of US 4,116,628.

Yamada teaches a two-phase liquid cosmetic composition comprising an oil phase, a water phase, and organic liquid miscible with water and finely divided solid particles that are present at the interface between oil and water (C 2, L 15-27). Instant claims recite guanine at the interface of oil and water. Yamada teaches that the solid particles may be selected from inorganic and organic particles, including the fish scale powder (which is admittedly a source of guanine as evidenced by US 3,577,528)

For claims 2-4, oil droplets; see col. 8, L 52-53.

For claim 5, see the examples of Yamada.

Art Unit: 1615

For claim 7, see col. 3, L 50-55. For claim 9, amount of guanine, see col. 4, L 14-16 and example 5.

For claim 9, example 5 teaches fish scale powder in an amount of 0.08 parts per 100 (0.08%), which is within the claimed range of 0.02% to 0.3%.

For claims 10-11, the examples of Yamada teach isopropyl alcohol as well as ethanol and the claimed amounts (see examples).

For claims 15, Yamada suggests one may include additional compositions such as perfume, antioxidants in the composition. Accordingly, a skilled artisan would have included a desired amount of perfume in the composition.

Yamada only states fish scale powder and does not explicitly state guanine.

US 4116628 to Hesse et al (Hesse) teach a powdery pearlescent composition comprising individual particles of a flaky nacreous pigments and their use in cosmetic compositions. Hesse teach natural fish scales (guanine) as a conventional pearlescent pigment (col. 2, L 64-67) along with other pigments such as oxybismuth, titanium dioxide, zirconium dioxide etc., all of which are also described by Yamada. Thus, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to employ fish scale powder or guanine isolated from fish scale powder for the solid particles of Yamada because Hesse teaches guanine from natural fish scales is equally efficient as other powdered pigments that impart pealy luster to the cosmetic composition.

Yamada does not exemplify a composition containing silicone oil and guanine as claimed and instead teaches liquid paraffin. However, it would have been obvious for

Art Unit: 1615

one of an ordinary skill in the art at the time of the instant invention to employ any of the oils described by Yamada including silicone oil, in the oil phase because Yamada suggests silicone oil as one of the suitable oils to prepare the oil phase, for their pearly appearance. With respect to the specific silicone oils claimed, Yamada suggests synthetic silicone oils are suitable and hence choosing an appropriate silicone oil so as to form the oil phase with desired pearly droplets in the two-phase composition would have been within the scope of a skilled artisan.

RESPONSE: Applicants argue that Yamada et al. discloses a cosmetic composition comprising oil, water, organic liquid miscible in water, and finely divided solid particles (present specification, paragraph [0005]). The oil is dispersed in the form of spheres and the solid particles are substantially absorbed on the interface between the oil phase and the homogeneous mixture phase of the organic liquid and water.

It is argued that Yamada et al. does not meet the features of the pending claims because Yamada et al. merely discloses the use of fish scales as the solid particles (col. 3, line 54, through col. 4, line 9) and that according to the instant specification, fish scale powder is not the same as guanine, as fish scales contain a myriad of other components, which can affect the desired composition (present specification, paragraph [0020]). Thus, the fish scale powder disclosed by Yamada et al. cannot be considered guanine that is synthetic or isolated from fish scales, as required by the amended pending claims.

Applicants' arguments are not persuasive because admittedly fish scales are a source of guanine, in addition to the said myriad of other things, which instant claims do not exclude. Further, the cited teachings of US 4,116,628 and US 3577528 clearly state that fish scales contain guanine and used as pearly powder in cosmetic composition. Particularly, 4611628 equate natural fish scales with guanine and its equivalence with other powdered particles, also taught by Yamada, in their pearlescent. In addition, applicants have not provided any evidence as to the absence of guanine in the fish scale powder of Yamada.

It is argued that there is simply no pointer in Yamada et al. to use or isolate guanine from the numerous other components in fish powder, let alone in combination with the precise silicone oil phase recited in the pending claims. Since Yamada et al. does not disclose or suggest all of the elements of the pending claims, claims 1-7, 9-11, and 15 are not obvious in view thereof that the rejection over Yamada et al. be withdrawn.

Applicants' arguments are not persuasive because instant rejection is now made over Yamada in view of Hesse, which is explained in detail above. Both Yamada and Hesse teach powdered pigments as equally efficient for pearlescence in cosmetic composition and therefore choosing one of the art recognized pearlescent powders in the cosmetic composition of Yamada would have been within the scope of skilled artisan.

2. Claim 8 is are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,920,883 to Yamada et al (Yamada) in view of US 4611628 to Hesse, as applied to

Art Unit: 1615

claims 1-7, 9-12 and 15-17 above, and further in view of US 4,992,262 to Nakagaki et al (Nakagaki).

Yamada teaches fish scale powder in the two-phase composition but does not teach silanized guanine. Hesse teaches coating of powdered pigments such as fish scale guanine with a polymer so as to strengthen the flakes and also prevent reduction of the luster of the flakes due to loss of strength and the resulting agglomeration (col. 1-2). Hesse teaches coating with polymers such as polyacrylamide, polyvinylpyrrolidone etc (col. 2, L 49-60) but not silanized.

Nakagaki teaches powder-based cosmetic ingredients and a process of producing the same. Nakagaki teaches powdered cosmetics such as pigments (zinc oxide, titanium oxide etc), pearlescent pigments such as fish scale guanine (col. 2, L 24-42). Nakagaki further teaches coating the cosmetic powder materials with silicone or metallic soap for improved adherence (C 2, L 43-55). Thus, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to coat the fish scale guanine powder (of Yamada and Hesse) with a coating material such as silicone (resulting in silanized guanine) because Nakagaki teaches that such a treatment imparts water repellency to the powder material. Accordingly, a skilled artisan would have employed silanized guanine in the composition of Yamada with an expectation to obtain a composition in which guanine with water repellency and in turn maintain guanine at the interface of oil and water phases.

Art Unit: 1615

3. Claims 12-14, 16-26 and 30-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,920,883 to Yamada et al (Yamada) In view of US 4611628 to Hesse, as applied to claims 1-7, 9-12 and 15 above, and further in view of US 6270782 to Sawyer et al (Sawyer).

Yamada, discussed above, fails to teach the claimed amounts of fragrances, perfumes, vitamins, pH and the spray assembly.

Sawyer teaches body spray composition with pearl-like oil-phase droplets in a spray assembly or transparent container, made of glass or plastic (C 3, I 27 and C 4, table). The composition of Sawyer comprises an oil phase containing a pigment that forms oil droplets and imparts pearlescence in an aqueous phase (abstract, for droplets are glossy pearls that are 1mm to 6mm col. 7, L 16-17). The oil phase further contains fragrances.

For claims 12-14, sawyer teaches that butylenes glycol at 0.5-5.0% is effective in maintaining the pearl (c5, L 52 & C 6, L 30).

For claims, 16-17, Sawyer teaches fragrances in an amount of 1.0 to 5.0% (C5, L 53).

For claims 18-20, Sawyer teaches mineral oil in the amount of 10-30% (C 5, L 46).

For claims, For claims 21-26, Sawyer teaches several pigments such as mica, titanium oxide (tables in col. 5-6), which are also claimed in the instant.

For claims 30-32, Sawyer teaches vitamins and their amounts in col. 10, L 9-28).

For claim 33, Sawyer teaches that the composition has a pH of 7.8 or in the range of 3.0-7.0 and overlaps with the instant pH range (col. 16-21).

For the claims related to the spray assembly, the spray assembly of Sawyer is described in col.3, which is a container with a liquid composition, a spray pump, a dip tube and a spray nozzle. Sawyer teaches that the dip tube is usually made of polyethylene and summarizes the type of plastic materials that affect the droplets (table from col.4 to col. 5). Among the suitable plastic materials, Sawyer teaches fluorinated polyethylene (3rd material in the above table) and polyvinyl chloride as suitable materials that cause no apparent deformities of the pearl-like droplets, thus suggesting the claimed fluorinated dip tube of the instant spray assembly. The composition of Sawyer is a body spray and hence meets the limitation of claim 34.

It would have been obvious for one of an ordinary skill in the art at the time of the instant invention to employ the spray assembly of Sawyer for the pearlescent composition of Yamada because Sawyer teaches that the spray assembly helps in maintaining and retaining the "pearls" and avoid unsightly pump dip tube and that the material of the spray assembly helps in maintaining the pearly droplets. Further, including the components such as emollients, vitamins, fragrances and optimize the pH of the composition without affecting the pearl droplets and yet achieving the desired benefit would have been within the scope of a skilled artisan.

Sawyer does not teach shape of the container wall as in claims 37-40 and radius and height of the container. Further, Sawyer teaches a dip tube that does not extend into the composition due to the fact that the droplets cling to the composition. Sawyer

teaches that although the oil droplets or spheres are heavier than the liquid phase and thus form the layer at the bottom of container, the invention includes compositions, which have oil phase droplets that are higher than the water phase, and thus exists in a layer at the top of the composition (C 1, L 53-59). Thus, when the oil phase is on the top of the container, the dip tube is in the oil phase without breaking the droplets and hence meets the limitation of claim 36 c). Further, in the absence of any unexpected result, choosing the shape and size of the container containing oily droplets composition of Sawyer would have been within the scope of a skilled artisan because Sawyer teaches a container that serves the purpose of spraying the composition effectively.

4. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,920,883 to Yamada et al (Yamada), as applied to claims 1-7, 9-12 and 15 above, and further in view of any one of US 5,384,114 to Dowell et al (Dowell) or US 6,203,807 to Lemann.

Yamada, discussed above, suggests silicone oils in the oil phase of the composition but fails to teach a combination of two silicone oils.

Dowell teaches an opacifier composition comprising pearlizer or opacifiers, used for cosmetic compositions such as hair, skin etc (abstract). Dowell teaches silicone conditioning agents such as volatile and non-volatile silicone oils (col. 11, L 50 though Col. 12, L 60). Example compositions (col. 19 and 20), particularly recite a combination of silicones (silicone blends), which meet the instant claim requirements.

Lemann teaches a cosmetic composition comprising a lipophilic continuous phase containing a pigment, in which the continuous phase has a oil selected from hydrocarbon oils, silicone oils etc. Among the silicone oils, Lemann teaches those claimed in the instant invention (col. 5, L 34-42) and for the mixtures of silicones (example 1). Lemann additionally teaches pearlescent agents to impart color and opacity to the composition.

It would have been obvious for one of an ordinary skill in the art at the time of the instant invention to employ a combination of silicones such as volatile and non-volatile silicones in the oil phase of Yamada because while Lemann suggests that the oil phase of a pearlescent composition may contain a single silicone or mixture of silicones, Dowell suggests that a combination of volatile and non-volatile silicones impart a conditioning effect and improved feel. Thus, a skilled artisan would have expected an improved conditioning and feel with a combination of silicones in the composition of Yamada.

RESPONSE: Applicants argue that Yamada does not teach the newly added limitation of guanine that is isolated or from natural fish scales. It is further argued that none of the references i.e., Nakagaki (rejection #2) or Sawyer, Dowell and/or Lemann teach the deficiencies of Yamada. However, examiner has addressed the arguments regarding the teachings of Yamada in the preceding paragraphs and Hesse et al has been further cited for the newly added limitation.

With respect to claims 36-47, applicants argue that the present claims are independent of the specific composition and that Sawyer discloses an embodiment in which the oil droplets are lighter than the water phase and exist in a layer at the top of the compositions (col. 1, L 53-59). It is argued that Sawyer does not exemplify what type of container would be used for such composition. Applicants argue that one of an ordinary skill in the art would recognize that Sawyer et al. would *not* contemplate using a dip tube that extends into the composition when the oil layer is on top. Since Sawyer et al. expressly discourages having the dip tube make contact with the oil droplets at all because it disrupts the droplets, causing them to rupture, deform, smear, and spread (col. 4, lines 20-30). It is stated that if a dip tube is to be used in the spray assembly of Sawyer et al., a "stubby" dip tube can be employed that extends into the composition but "stops short of the droplet layer" to avoid disruption of the pearls (col. 4, lines 31-35) and thus, Sawyer et al. clearly teaches away from using a dip tube that extends into the region of the pearlized oil droplets of the composition, regardless of whether the oil droplets are on top or below the aqueous phase. To assert otherwise, is in direct contrast to the teachings of Sawyer et al.

Applicants' arguments are not persuasive because Sawyer clearly states that the spray assembly container is at least partially transparent and that it is made of materials such as fluorinated polyethylene (3rd material in the table of col. 3) and polyvinyl chloride as suitable materials that cause no apparent deformities of the pearl-like droplets. Further, Sawyer states that the dip tube should not be extended into the oil droplet phase "when the spray container is in upright position". With respect to the

argument regarding the oil droplets of Sawyer being in the lighter top phase, "sawyer specially emphasizes that **"the pump sprays liquid that has been brought up ward by shaking or inverting the container"** (see col. 3, L 35-44) and also describes the **mechanism of mixing the composition before spraying in the description for Fig. 2 (col. 3, L 61-67)"**. Instant claims do not state if the dip tube is in contact with the oil droplets in an upright position or in an inverted position, nor so instant claims state if the container is in upright position. Sawyer states that the spray pump is free of plastic that extends in to the droplets when the pump is in upright position". Alternatively, Sawyer describes embodiments in which dip tube extends in to the oil droplet layer (figure 4 descriptions in col. 4) and one in which the dip tube is stubby (fig. 3 description in col. 4). Thus, when the prior art describes different mechanisms of sprays (with or without a dip tube, with the dip tube being stubby or extending into the oil droplets) and the advantages or disadvantages associated with it, it would have been within the scope of a skilled artisan to eliminate a step or a function, in this case, choose to employ a long dip tube that extends into the oil droplets depending on the desire to maintain or not maintain the shape of the oil droplets. Instant claims do not state if the oil droplets maintain the shape with the dip tube extending in to the composition.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 1615

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S. Channavajjala whose telephone number is 571-272-0591. The examiner can normally be reached on 7.00 AM -4.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1615

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AU 1615
November 11, 2007


LAKSHMI S. CHANNAVAJJALA
PRIMARY EXAMINER